



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,229	04/13/2005	Jonathon Leigh Napper	NPW008US NP	4667

24011 7590 12/03/2007
SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

BLOOM, NATHAN J

ART UNIT	PAPER NUMBER
----------	--------------

2624

MAIL DATE	DELIVERY MODE
-----------	---------------

12/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,229

Applicant(s)

NAPPER, JONATHON LEIGH

Examiner

Nathan Bloom

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) 5-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date
:04/13/2005,06/29/2006,03/18/2007.

DETAILED ACTION

Claim Objections

1. Claims 5-22 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must refer to other claims in the alternative only, and cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-22 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4, and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Geidl (US 2003/0088410).

Instant Claim 1: A method of interpreting data input to an electronic form-based data entry system, including:

receiving movement data from a moveable input device, the movement data associated with a particular field of an electronic form; [*The handwritten input data (movement data) received by the computing device (touch pad or virtual tablet in combination with a pen or stylus) described by Geidl in paragraphs 0034-0035 and 0037-0038 is the movement data from the moveable input*

device (pen/stylus). Furthermore, the movement data (handwritten input data) is associated with a particular field as is disclosed by Geidl in paragraphs 0038-0039 and item 202 of Figure 2.]

determining one or more possible variables of information content in the movement data by applying at least one handwriting algorithm to the movement data; *[The one or more variables referred to by applicant are text, characters, symbols, or the like generated from handwriting recognition algorithms. Geidl in paragraphs 0038-0049 describes using the natural raw data (pen/stylus motion data), contextual information (context of the particular field), and user-bias data supplied to a (handwriting) recognizer that determines one or more possible variable of information (words, symbols, numbers, or other characters) using a handwriting detection algorithm to translate them from the supplied natural raw data (handwritten information).]*

determining a preferred variable of the information content by utilising at least one parameter associated with the particular field of the electronic form. *[See above comments and cited paragraphs, wherein it was discussed that Geidl uses the contextual fields to logically limit the possible variables of the recognizer. Geidl limits the dictionary of words, characters, symbols, or characters recognized by the handwriting recognition software by giving each field a context. This limited dictionary reduces the number of possibilities for the recognizer (OCR, handwriting recognition algorithm) and thus increases the accuracy and efficiency of the recognition process.]*

Instant Claim 2: A method of interpreting data input to an electronic form-based data entry system, including:

receiving movement data from a moveable input device, the movement data associated with a particular field of an electronic form; [*See rejection of instant claim 1.*]

limiting the types of possible variables of information content in the movement data by utilising at least one parameter associated with the particular field of the electronic form; [*See rejection of instant claim 1.*]

determining a preferred variable of the information content, from the limited types of possible variables of information content in the movement data by applying at least one handwriting algorithm to the movement data. [*See rejection of instant claim 1.*]

Instant Claim 4: The method as claimed in either claim 1 or 2, wherein determining the preferred variable of the information context is performed contemporaneously with receiving the movement data. [*As per the rejection of claims 1 and 2 the contextual information is used in conjunction with the movement data to determine the variable (word/symbol/character.....). Furthermore, the recognizer determines the variables upon reception of the data and thus it is inherent since there are no other steps between reception and recognition of the data that the reception and recognition occur "contemporaneously".*]

Instant Claim 23: A method of enabling uses to enter information content into an electronic form-based data entry system, the method including the steps of:
providing a user with an electronic form the electronic form having disposed therein or thereon coded data indicative of a particular field of the electronic form and of at least one reference

point of the electronic form; *[See the rejection of instant claim 1 and Figure 3 which depicts the electronic form that is provided to a user.]*

receiving in a computer system indicating data from a sensing device, operated by the user, regarding the identity of the electronic form and at least one of a position and a movement of the sensing device relative to the electronic form; and, *[See Figure 3 which depicts an example application (form) and at the top it shows the identity of the form to be "AppZ Input Window". Also, see the rejection of instant claim 1 which refers to the section Geidl that discloses the sensing of the movement and position of an input device relative to the form (pen or stylus on a touch-screen, digitizer pad, or virtual tablet).]*

determining a preferred value of the information content from the indicating data by utilising at least one parameter associated with the particular field of the electronic form; *[See the rejection of instant claim 1 wherein recognition of the input data is performed in conjunction with the contextual field information.]*

wherein the sensing device comprises: *[Paragraph 0035 of Geidl discloses pen/stylus and touch-screen devices as well as virtual tablet and electronic ink type devices. The Virtual tablet devices are those that include a pen, camera, and a "virtual tablet" which is a surface that emulates the surface to be written on. Geidl does not go into detail about this device, but these virtual tablets and their uses in filling out forms electronically were well known as is evidenced by Geidl whom lists them as a possible input device. Furthermore, several references have been listed at the conclusion of this office action that discuss virtual tablets and similar devices.]*

(a) an image sensor adapted to capture images of at least some of the coded data when the sensing device is placed in an operative position relative to the electronic form; and

(b) a processor adapted to:

(i) identify at least some of the coded data from one or more of the captured images;

(ii) decode at least some of the coded data; and

(iii) generate the indicating data using at least some of the decoded coded data. [(a) and (b)

describe inherent properties of the virtual tablet as well as limitations that have already been discussed: see the comments above.]

Instant Claim 24: The method as claimed in claim 23, wherein the particular field of the electronic form is associated with at least one zone of the electronic form, and the method includes identifying, in the computer system and from the at least one zone, the at least one parameter. *[As per rejection of instant claim 1 the field (see Figure 3), which is a zone in the electronic form, has contextual limitations to assist the recognition software in determining the at least one parameter (word, symbol, or character).]*

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geidl as applied to claims 1-2 above, and further in view of Seni (US 2003/0007018).

Instant Claim 3: The method as claimed in either claim 1 or 2, wherein determining the preferred variable of the information content utilises a probability value assigned to each of the possible variables of information content. *[Geidl discloses a method of recognizing handwritten data by associating that data with the context of the field it has been written in wherein the context of the field is assigned prior to the use of the field (application and form specific). Geidl does not disclose the assignment of a probability value, but in paragraph 0004 Geidl cites that it was common to assign probability values to words (variables). This practice is to increase the accuracy and efficiency of the recognition process, and to improve error correction when the first or subsequent "best guesses" are incorrect, because it gives additional words, characters, or symbols that could be the word, character, or symbol in question. Seni in paragraphs 0019-021 teaches the use of such confidence or probability scores in assisting the recognition of handwritten information. It would have been obvious to one of ordinary skill in the art to modify the teachings of Geidl to include further error correction of the handwriting recognition using a known method such as the one taught by Seni in order to increase the accuracy and efficiency of handwriting recognition as is taught by Seni and Geidl.]*

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ikebata (US6226404) - measuring particular characteristics of a pen used for creation of "digital ink" (using a virtual tablet).

- Dresevic (US2001/0056442) – use of electronic ink and character recognition using a "virtual tablet" type device.
- Dresevic (US2002/0049796) – imaging system that recognizes text data from input device movement.
- Altman (US2002/0064308) – handwriting recognition of imaged data.
- Lui (US6867786) – digital ink environment.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Bloom whose telephone number is 571-272-9321. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed, can be reached on 571-272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NB



SAMIR AHMED
SUPERVISORY PATENT EXAMINER